PUBLIC WORKS CANADA

report

study to evaluate the marketing strategies used to sell solar heating under the solar domestic hot water demonstration program.

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FINAL REPORT: STUDY TO EVALUATE MARKETING STRATEGIES USED IN THE SOLAR DHW DEMONSTRATION PHASE III PROGRAM

We are pleased to submit our final report on the above subject.

TECHNO-ECONOMIC RESEARCH UNIT LIMITED

Project # 84010/081

EXECUTIVE SUMMARY

study objectives

This study conducts a review of the marketing approaches used by the contractor in Phase III of the solar domestic hot water demonstration program.

> The objective of this study is to evaluate the strengths and weaknesses of industry's marketing strategies under Phase III of the solar domestic hot water program and to conclude which are the most successful (from a seller's viewpoint).

All main contractors and their dealers were surveyed as part of the project.

marketing management environment

The inability of the solar industry (manufacturers and their dealers) to sell more than one half of the systems allocated under the 1984 Phase III program is attributed to a combination of factors. These include the following, ranked roughly in order of their potency:

1. lack of program awareness among the public, caused predominantly by almost insignificant free publicity (compared to the previous year);
2. influence of many inexperienced dealers, combined with poor manufacturer control and support;
3. inappropriately timed and directed advertising by dealers, especially with respect to media selection;
4. poorly managed collection of enquiries among dealers, which resulted in interested people being unable to contact advertisers in an

efficient manner;

5. lack of manufacturer support for dealers in their promotion and, for a few, their failure to carry out promised promotional activities;

6. system failures and resultant customer resistance in certain key geographic markets;

7. government inaction in the wake of the above, particularly with respect to public awareness, timely advertising and the effective handling of enquiries generated by advertising;

8. inadequate screening of leads by dealers, resulting in lower closing efficiencies, wasted time and higher promotional costs;

9. unusally severe winter conditions;

10. the effects of the depressed economy, particularly in the Atlantic and Western provinces (sales in the Atlantic Provinces held up despite the economic conditions, however, for other reasons which are outlined in the body of the report);

11. the decrease in the level of the grant and resultant price increase to the customer;

12. compared to the previous year, the potent "limited time only deal" component was less apparent, and the very easy sales were apparently exhausted.

Regretfully, it appears that some manufacturers and dealers were discouraged by their performance, which further undermined the industry's ability to agressively market their systems.

<u>manufacturer dealer networks</u>

Manufacturers had between the 1982/3 and 1983/4 program made great efforts to build up a large number of dealers. Hopefully, the experience of the last few months will demonstrate to them that this produced predictably

disappointing results.

The reason for this is basically threefold. Firstly, "dealership" involves marketing: few of the dealers chosen had this capability. In other words the dealership function has been confused with the physical installation function.

Secondly, too many dealers are difficult to manage. It was abundantly evident during this survey that manufacturers basically lost control of the management of their dealerships (even to the extent that some were not able to give reliable data on their dealer sales positions).

Thirdly, the designation of the promotion function to dealers (especially when they were very small and had no capability) resulted in very ineffective promotion, since the dealer could not be expected to make profits on the sale of a few systems because unit promotional costs could not be absorbed.

Suggestions are made in the main text of the report that manufacturers reconsider their distribution approach.

promotion planning and strategy

The report provides ideas for main considerations on promotional strategy and planning.

Promotion strategies should be established in advance of the sales campaign and should be congruent with the other elements of the marketing mix - the product, prices, and distribution strategy.

Promotion, whatever its form, should have five major considerations:

- consider who the potential solar customers are; their stereotype is now fairly well documented, (e.g. high income, professional) and direct most, if not all efforts towards reaching this type.

- consider what the customer's main motivations are in buying a solar system. These now are also quite well known, e.g.: the grant and energy savings. Heavily

promote these factors.

- consider that the general public has a low level of knowledge about solar. Provide sufficient information in the advertisement to ensure that the prospect's interest is not based on ignorance. This will pay good dividends later.

- consider that the customer needs to be persuaded not only to buy solar, but to buy it from the advertiser. Establish an image of technical competence and manufacturing reliability. Promote the manufacturer as well as the product.

Further discussion of promotional strategies and tactics as well as personal visit techniques are detailed in the text.

executive summary i

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REPORT

STUDY TO EVALUATE MARKETING STRATEGIES USED IN THE SOLAR DHW DEMONSTRATION PHASE III PROGRAM

INTRODUCTION

background and objective

Phase III of the PUSH solar domestic hot water program involved the planned installation of 2,061 systems valued at approximately $3.6 million, through 16 main contractors. Under the program, the Federal Government provided a non-taxable grant of 50% of the price of the system to a maximum of $1,700.

However, Phase III, which was in place between November 1983 and June 1984, resulted in only 1,000 system sales. This was approximately the same number as the previous year's Phase II (in which the government contributed up to a maximum of 65% or $1,950 per system).

This study conducts a review of the marketing approaches used by the contractors in Phase III. It is similar to the one conducted in the earlier phase, the results of which were published in June 1983.

> **The objective of this study is to evaluate the strengths and weaknesses of industry's marketing strategies under Phase III of the solar domestic hot water program and to conclude which are the most successful (from a seller's viewpoint).**

The industry included sixteen main contractors (of which nine were manufacturers) and seventy-seven dealers/installers. Four of the dealers were supplied from more than one manufacturer and have been termed

"independent dealers" in this report.

methodology

All main contractors and dealers were sent a questionnaire in advance of a personal visit or telephone interview in which the required information was collected. Copies of the questionnaires are given in Appendix A.

Of the original sixteen main contractors participating in the program two closed down during the program. They were:

- Enersource Inc., St. Catherines, Ont.;
- Guelph Energy Centre Inc., Guelph, Ont.

Amherst Solar, Ottawa, was acquired by Mitchell Industries of Montreal (which marketed solar under the name Sol-Pro Inc.). All of the companies were non-respondents. Mitchell Industries refused participation, while the others could not be contacted.

Considerable difficulty was encountered in contacting the majority of respondents, as telephones were not answered or engaged for long periods, or messages left on answering machines were not returned. In some cases messages left with office staff were also not returned. A minimum of three attempts were made to contact all respondents while a larger effort was made for those that had sold more than 5 systems.

A significant response was obtained from all the remaining main contractors and 47 dealers listed on the Public Works Canada status report of May 11, 1984. (Dealers added after this date were not included in the survey, including CEC Turcotte Inc., Montreal, which appeared only on the June 8, 1984 status report, yet had already sold 22 systems.) The dealers responding accounted for more than three quarters of the systems sold under the program.

Many respondents had a poor idea of where leads had been generated or how many visits had been made; in these cases, rough estimates had to be made. Manufacturers had very little knowledge of the activities or promotion results of their dealers.

Indeed, generally speaking, the main contractors were apparently less organised than last year in dealing with promotional matters, possibly because they were taken by surprise at the slower development of sales this year compared to last.

Unfortunately, a few major manufacturers possibly exaggerated their promotion expenditures, especially their expenditures on literature development; this is probably a result of their weak control over costs, and also possibly because a few had clearly not implemented strategies promised in their proposals to the government.

It should also be noted that some of the main contractors clearly exaggerated actual sales positions during TRU interviews in the early part of March. As a result data compiled at that time for the government presented an overly optimistic view of the successes being achieved in the program. (Furthermore, it appears that these contractors tend to be the most critical of the government's handling of the program.)

The majority of respondents did not provide copies of advertisements promised during the interview. Fortunately, copies of many dealer advertisements were obtained on personal visits to the main contractors.

Despite these limitations the survey did provide sufficient information to facilitate a good comparative analysis of the marketing strategies used in the program. Much was learned about the effectiveness of the various strategies.

DISTRIBUTION CHANNELS USED

Virtually all of the solar systems were sold through a one level distribution chain; that is, from manufacturer to what the industry refers to as "dealers". However, the manufacturers themselves sold 61 systems directly even though they had dealers.

The 984 systems sold reached the homeowner as follows:

total supply from manufacturer	984

by outlet type:

o direct to homeowners	61
o through own dealers	738
o through independent dealers	185

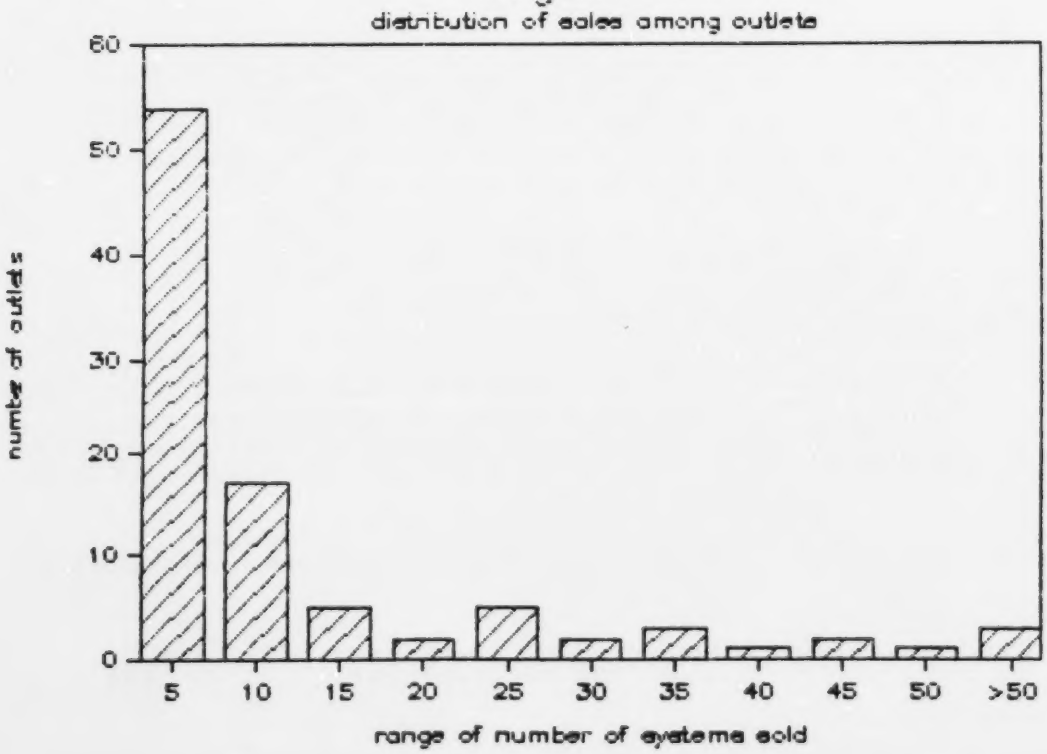
by contractor level:

o main contractor manufacturers	61
o main contractor dealers	320
o sub-contractor dealers	603

One of the important developments in the industry of the last year has been the attempt by manufacturers to establish dealer outlets. There were 64 one-supplier dealers listed as of May, as well as 5 independent dealers (i.e., with more than one supplier).

Many of these dealers could actually better be described as installers since they have no marketing "organisation" for solar. As shown in Figure 1 entitled, "Distribution of sales values among outlets", more than half of the outlets sold less than 5 systems during the program.

figure 1



Indeed, of the 44 dealers responding, one-third described their business as being solar equipment installation. About 27% of the contractors said they were heating and plumbing contractors, and 23% said they were energy specialist retailers. The rest were general contractors or engineers.

characteristics of dealers responding

Respondents to the survey provided data on the number of years in business and the number of employees. An analysis of this provides some insight into the types of organisations involved. The following data overrepresents the larger and more successful dealers (because they tended to be more willing to provide the information) but excludes the six main contractor dealers under the program:

	NUMBER RESPONDING	AVERAGES
average years in business	46	11.9
average years in solar	46	3.6
average number of employees		
o in all business activities	46	7.9
- full time	46	5.6
- part time	46	2.3
o active in solar activities		
- full time	45	1.6
- part time	45	1.5

This data confirms that the solar dealerships tend to be newly established and small.

PROMOTION EFFORTS BY THE INDUSTRY

overall expenditures

The respondents to our survey spent approximately $363,000 (or an average of $6,500 each) on promoting solar. This figure includes both external costs such as payments for advertising as well as an estimate for internal labor costs (based on a standard rate of $25 per hour).

Most of this expenditure was for internal labor costs as follows:

	$	$ AVERAGE	% OF TOTAL
advertising and shows:	78 500	1 400	21
internal labor	202 800	3 600	56
commissions and travel	82 000	1 500	23
total costs	363 000	6 500	100

Considering that the non-respondents were mostly small operators, it is estimated that the total promotional cost of the industry was about $400,000.

This is more than twice the amount spent in Phase II for promotion overall; while advertising costs this year exceeded last year's by almost 200%.

distribution of promotion expenditures

These averages for total promotion expenditures have been slanted by stated large expenditures by a few manufacturer main contractors who state they spent large sums on product literature for the program. Two such companies spent over $10,000 on the preparation of product literature.

The following two figures, Figure 2 and Figure 3, provide the distribution (among all respondents) of total promotion expenditures.

advertising media selected

Within the category of advertising and shows respondents spent the most on advertising in daily and weekly newspapers as follows:

	ALL RESPONDENTS $	AVERAGE $	% OF TOTAL
advertising in dailies	16 650	297	21.2
advertising in weekly papers	14 794	264	18.8
advertising in periodicals	2 165	39	2.8
direct mail	12 324	22	15.7
door-to-door fliers	1 256	22	1.6
radio advertising	5 264	94	6.7
shows	26 091	466	33.2
total	78 544	1 403	100.0

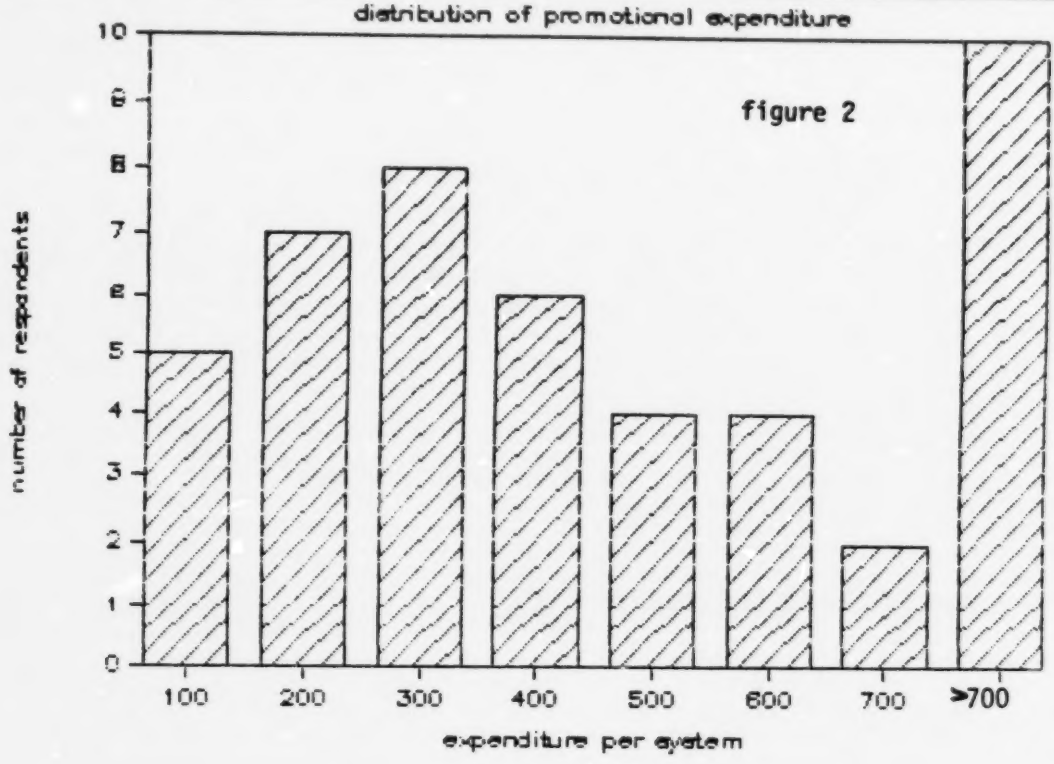


figure 2

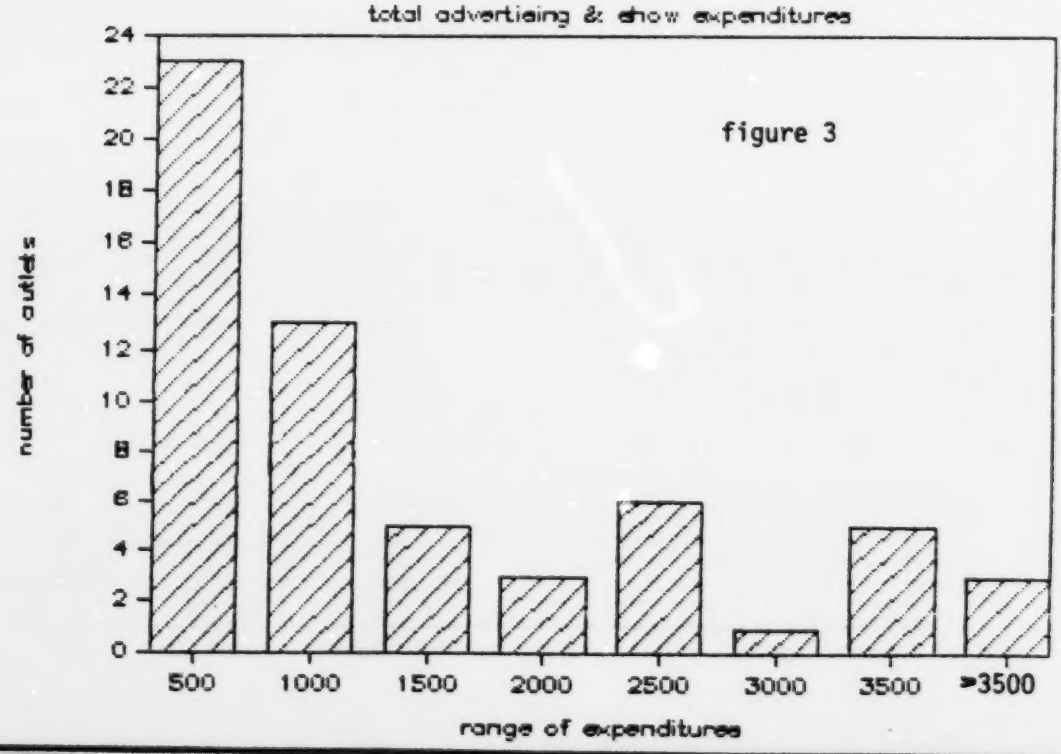


figure 3

Thirty-two of fifty-eight respondents advertised in daily papers, 33 in weeklies and 10 in periodicals such as Encotech News.

Generally speaking the suburban or local paper was used as the medium for advertising, the argument being that large national papers such as The Globe and Mail were too expensive or not appropriate for the local outlet which had responsibility for advertising. (None of the main contractors undertook national advertising even though this was promised in some of their proposals.)

Although it is possible to further target potential customers by selecting a particular section of a newspaper for advertisement, the advertisers tended not to specify sections. More often than not a range of sections was "tried". For those respondents who did target customers the home or construction section was most often stipulated, although the business section and the TV times were also used.

Probably the majority of advertising was placed in the classified sections of newspapers, many indeed in the local weekly "advertiser". A few respondents placed advertisements in energy oriented sections or renewable energy specialty papers.

More than 80,000 direct mail fliers distributed typically by the post office were paid for by seventeen respondents. Six other respondents used fliers in their own limited door-to-door deliveries. Five respondents tried radio advertisements on the local radio station.

Thirty-five respondents put effort into shows including small shows. The most popular type of show was that which was dedicated to the home or to energy conservation, and typically a small demonstration unit was displayed.

promotional message

The usual advertisement promoted the government grant and the energy savings of solar. Some examples are given in Appendix B entitled, "Examples of advertisements placed by participants under the DHW program".

Two observations should be made. Most advertisements did not directly specify the price of the solar system. That is, the price was not part of the advertising message and likely would not have been a major factor in determining the initial interest of the reader. Secondly, unlike last year, the concept of limited numbers and limited time for the buyer to take action was not a large component of the message.

One of the advertisements given in Appendix B suggests that the reader "see us at the mall" or call or write. Several similar advertisements were placed by various contractors to back up show activities.

The propagation of the existence of the government grant was thought by most respondents to be by far the most significant message in their promotion, firstly because of the large proportion of the price that was involved, but also because the government backing gave some credibility to the fledgling industry and its products.

For the more established outlets (of which there are very few) the use of the company name was thought by the respondent to be important in providing further credibility.

receiving enquiries

The respondents received over 4,000 enquiries as a result of this advertising, either over the telephone or at a show. Answering potential customer telephone enquiries took approximately 3,800 hours or an average of 70 hours per respondent over the life of Phase III.

A large proportion of dealers used answering services or answering machines to take their messages, while a number had other family members do so. In conducting this survey from March to June, we found that many telephones went unanswered and several other telephones were engaged for long periods of time. A few respondents admitted that customer access to their telephones would be difficult. In one case the respondent stated that the telephone went unanswered for a month. (Furthermore, telephone messages left on an answering machine on the day an advertisement appeared in a Toronto newspaper as a test of the dealer, were never returned.)

It can be reasonably concluded that there were significant losses of leads as a result of the dealers being disorganised when it came to taking customer enquiries. Added to this was the probability that very poor records of incoming calls were kept, resulting in delays in returning calls.

Obviously, those potential customers who did gain access to the dealer under these circumstances would require much more convincing to finally buy the solar system than would the customer who experienced no difficulties and whose enquiries were answered in a timeous, informative and efficient way. An underlying feature of an effective sales technique is to handle enquiries as quickly as possible right through to the sale closing.

other methods of promotion

The industry has begun to recognise the importance of referrals: indeed 24 out of 55 respondents stated that they had taken specific action to call (or write) previous solar buyers to ask for names of friends who had expressed an interest in a solar system. Generally speaking, this produced good results.

Related to the above but only on a small scale, was the promotion of domestic hot water systems to previous buyers of pool solar systems. Not only are these potential customers already convinced about solar, as pool owners they would tend also to have high incomes, which has been shown to be a key characteristic of solar system buyers.

One dealer attracted potential customers to open house seminars. A copy of the flier used in promoting the seminar is shown in Figure 4 entitled, "Flier used to attract potential soalr customers to a seminar".

The same dealer offered potential customers a $1,900 grant, on a system price of $3,800. Since the government grant amounted to only $1,600, the dealer was offering a $300 grant of his own. What the dealer was actually doing was putting greater promotional emphasis on the size of the grant in conjunction with an inflated "regular price".

Figure 4. Flier used to attract potential solar customers to a seminar

A few dealers promoted solar to builders or buyers of new homes, arguing that it was cheaper to install on a home still under construction. Another contractor was successful at selling solar by a process he described as "networking", calling on all people he knew might be interested in solar as well as stopping at appropriate new construction sites to discuss solar with the builder and if possible the owner.

free publicity received

Only fifteen of fifty-six respondents received publicity on their solar promotion efforts. In comparison with Phase II of the program, this was exceptionally poor. Some contractors who had considerable success in obtaining several free articles last year were unable to obtain any this year.

The reasons for the lack of interest of the press was stated to be mainly that the program is no longer newsworthy. Other respondents believe the lack of government support was a contributing factor.

Publicity in the past was not only a direct contributor to making more people aware about the program, but was also an image enhancer for solar and the dealer who was mentioned in the article. This year only 168 enquiries were attributed to publicity compared to 1700 in the Phase II program.

negative publicity and system failure effects

A front page article in "The Intelligencer" of Belleville, Ontario, reporting that Ontario Hydro considered solar uneconomic, was cited by a local contractor as negatively influencing solar sales.

Solar energy has also received an image set-back as a result of system failures (mainly leaking, freezing and pump problems) in most areas - significantly in Alberta, Ontario and Quebec. The most significant failure rates occurred in Southwest Ontario, where the majority of the systems installed by one contractor in Phase II had problems.

Of our respondents, only 55% thought that solar systems failures had a "small impact" on new customer resistance:

25% thought it had "some impact";
15% thought it had "significant impact",and
4% thought it had a "large impact".

Furthermore, a recent study of solar homeowner attitudes (EM&R, 1984, Socio-economic Study of solar domestic water heating demonstration program) showed that 17% of respondents thought leaks were a major problem and 18% thought pumps were a major problem.

Post purchase regret has been found to be a very potent contributor to marketplace product failures. These statistics should therefore be of major comcern to the industry and government.

federal government advertising and support

The apparent lack of awareness of the program among the general public was stated by the respondents to be aggravated by the goverment. (Indeed the government was overwhelmingly criticised for this, despite the fact that no advertising was undertaken in Phase II of the program).

A further criticism was that advertising promised in the early part of the program did not materialise until much later, and this affected the promotional plans of the contractors.

The federal government spent $25,000 in advertising in the third week of March. The media used were the national press and magazines, with some bias towards the financial press. Enquiries were monitored by Energy, Mines and Resources with the results shown in Table 1 entitled, "Enquiries recorded from federal government advertising by province".

A copy of the advertisement is given in Appendix B.

About 840 enquiries were received at an advertising cost rate of $30 per enquiry. (Almost the same number of enquiries were generated by industry advertising at a cost of $39 per enquiry.) However, eighty-three per cent of respondents stated that government advertising only had a small impact on their efforts. About 12% said it

had some impact and 6% a significant impact. Many stated that local advertising was required.

TABLE 1 : ENQUIRIES RECORDED FROM FEDERAL GOVERNMENT ADVERTISING BY PROVINCE

NEWSPAPER	NFD	NB	PEI	NS	ATL	QUE	ONT	MAN	SAS	ALT	PRA	BC	CND
macleans		2			2	20	273	1	24		25	37	357
globe & mail		6	5		11	2	125		3		3	13	154
financial post		2			2	11	30	3	1		4	10	57
les affaires					0	35	13				0		48
financial times					0	10	51	3	1		4	10	75
unknown source			18	28	46		10			13	13	3	72
sol					0		4				0		4
others					0	18	36		13		13	4	71
totals	0	10	23	28	61	96	542	7	42	13	62	77	836

sources and notes:
Energy, Mines and Resources
Techno-economic Research Unit Limited

Perhaps the reason why industry regarded the advertising as ineffective was related to the fact that the government did not release the names of callers to the industry. The stated reason for this is that the government did not wish the callers to be bothered by sales calls, although the government later implemented a procedure of asking the caller whether or not he would like his name passed to a subcontractor. At this point it is not possible to tell whether the government answered enquiry actually resulted in sales; this is an area of further research by EM&R.

Callers to EM&R offices were given the names of contractors or dealers in their area, although our respondents stated that checks they made indicated that the offices did not have a complete list. They also confirmed that the EM&R officials were not knowledgeable about solar or the details of the program.

Other callers to EM&R were offered informational material in the mail; these prospects were likely to have been lost due to the delays in moving the prospect through the stages of awareness, interest, desire and action (AIDA). The more possibility of time delays or required initiatives of a prospect, the more likely that the prospect will lose interest.

An anonymous call to the main ENERSAVE number in Ottawa requesting general information on grants available for a "home solar system" required a considerable amount of prompting before the official was able to identify the current program. (The official's view was that a COSP grant was the main grant for solar.)

The federal government has allocated $100,000 to promote this program in 1984/5 and is currently examining changes to its approach, including the possibility of providing the advertisement reader with the choice of looking up the yellow pages for a contractor or calling the EM&R local office.

There would also be some changes to the media to be used, although in our view the government media strategy has been well directed. The government could give local promotion support by providing updated solar systems literature and pamphlets on the grant for distribution by manufacturers and dealers.

Virtually all of the criticism directed at the government was related to lack of advertising support. In answer to the question:"How would you describe the adequacy of federal government support during this program?":

20% answered "good support";
39% answered "adequate support";
27% answered "inadequate support"; and
14% answered "poor support".

The few respondents who reported poor support had high expectations of the government with respect to providing a larger grant and greater support for the technology. (A very small extremist minority passed comments which were probably more reflective of their own failings than those of the government.)

CLOSING THE SALE

lead screening

Generally speaking, the screening of enquiries by industry amounted to a basic check on whether the caller understood the product and the amenability of the home for solar before being visited. Dealers tended to avoid discussing money details on the phone and preferred to use the personal visit as the main sales instrument (except in the case of the retail store dealer who would encourage the prospect to come to the store).

About 38% of enquiries or 1,640 homes were visited in Phase III, a higher ratio by 4 percentage points than last year. It was felt that this year there were insufficient enquiries to take a chance on losing a sale because a lead was not pursued with a visit.

At least two outlets mailed informational material to enquirers and expected the prospect to call if he were interested (or were called back later). As earlier TRU studies have reported, this method of screening is extremely inefficient because the interest of the prospect will be lost in most of the cases. It is worth repeating our earlier conclusion that sales leads must be followed through to closing in the shortest possible time to be most effective. Any form of exchange of information by mail is incongruent with this principle.

visiting the home

All homes had to be visited to check the final amenability of the house to solar. However, more than 600 homes had to be visited twice on sales calls before a sale was made; this represents over 60% of the buyers of solar. A further 184 second sales visits were made to homes for which no sale was achieved. Final sales closings were therefore much more difficult than last year when the majority of systems were sold on the first visit, and further call backs were made only if a sale was certain.

Approximately three-fifths of the people visiting the houses were described by respondents as trained salesmen.

($33,00 was paid out by the industry in sales commissions.) However, few indicated that a hard sell approach was used or appropriate for solar. Most approaches revolved around the amenability of the house to solar, an explanation of the system and then a mostly awkward discussion of the price and whether or not the system was wanted.

The successful sellers qualified the prospect (sometimes using reverse persuasion by at first indicating that the structure of the prospect's house was not suitable) and used the completion of the contract forms as part of the selling effort, skillfully avoiding the negatives. Broaching the price issue by saying,"Okay, the government grants you $1,600, what can you put down, $300?", for example, avoids a full discussion of price at the critical closing point.

main concerns of customers on the sales visit

During our survey respondents were asked what percentage of the prospects visited significantly discussed certain factors. The results are the following:

	MEAN RESPONSE	RANKING
the details of the grant	83%	1
the fuel savings	81%	2
the workings of the system	78%	3
the reliability of the system	75%	4
the payback of the system	72%	5
the responsibility for repairs	64%	6
details of the contract	56%	7
standing of the organisation	43%	8

the distribution of the responses

Table 2 entitled, "Number of respondents indicating the stated percentage of customers significantly discussing the given factors", gives quantitative details.

The details of the grant issue was the first ranking concern of customers and indicates its significance in making the sale.

Payback in this question was rated as a relatively low concern, yet it was rated second when respondents were asked to rank among ten items what they thought were the customers' main concerns prior to deciding to purchase the solar system. The following are the mean results of the ranking (while the distribution of the answers is given in Table 3 entitled, "Number of respondents ranking the given factor from one to ten"):

FACTOR	MEAN RANKING
cost of purchase	1
payback of investment	2
reliability & life of system	3
uncertainty of energy savings	4
collector's appearance	5
maintenance costs	6
climate appropriateness	7
orientation of the house	8
newness of industry	9
newness of technology	10

Table 2.
Number of respondents indicating the stated percentage of customers significnatly discussing the given factor

	DISTRIBUTION (1)					MEAN RESPONSE
	1-20%	21-40%	41-60%	61-80%	81-100%	
fuel savings from solar	3	3	5	7	31	81%
payback of solar system	5	1	3	11	28	72%
the details of the grant	2	2	4	7	32	83%
workings of solar system	3	4	6	8	28	78%
reliability of solar system	5	1	6	13	22	75%
responsibility for repairs	10	3	5	4	22	64%
details of the contract	10	3	13	5	14	56%
standing of organisation	12	7	8	5	8	43%

Sources and notes:

(1) The distribution relates to the number of respondents answering the question "On the promotional visits, what percentage of customers significantly discussed the following:", etc.

Techno-economic Research Unit Limited

Table 3.
Number of respondents ranking the given factor from one to ten

FACTOR	DISTRIBUTION RANKING (1) 1	2	3	4	5	6	7	8	9	10	MEAN RESPONSE
collector's appearance	0	6	2	10	4	7	6	7	2	3	5
cost of purchase	32	6	2	3	4	0	0	0	1	0	1
reliability of system	2	5	13	7	9	2	5	3	1	0	3
orientation of the house	2	3	2	4	1	8	8	2	8	8	8
newness of the industry	0	0	2	0	6	8	5	11	6	8	9
maintenance costs	0	1	4	4	6	6	7	6	7	5	6
uncertain energy savings	4	8	6	5	7	4	4	4	4	1	4
climate appropriateness	0	4	3	5	4	5	4	6	6	9	7
payback of investment	6	15	11	6	4	2	1	1	1	0	2
newness of technology	2	0	2	3	1	4	6	6	10	12	10

sources and notes:
1. The distribution relates to the response given by contractors to the question: "Please rank among the following ten items what you think customers' main concerns were prior to deciding whether or not to buy the solar system." (Use 1 for the highest ranking through 10 for the lowest.)

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Respondents answering enquiries on payback usually gave figures of between 5 and 8 years, which was likely an optimistic view in many instances. Several respondents avoided the question by answering in terms of the solar system being a better investment than money in the bank and, in one instance, by countering the prospect by asking him what the payback was on his television.

It is very interesting that the collector's appearance has become a significant negative issue -- a factor which did not surface last year. It was ranked fifth by the respondents and was mentioned frequently as an added concern of customers, especially among women buyers. (The recent EM&R survey of 194 solar homeowners ranked the item at number 8.)

The fact that some respondents thought that adding value to the property was a significant criterion in making the final sale is somewhat incongruent with the finding that the collector's appearance ranks so high as a major concern. Presumably, therefore, the former argument may not be a potent selling point or indeed may even be a significant negative despite its widespread use among dealers.

Note also that the reliability of the system is ranked highly in both approaches to customer concerns. This would tend to support our view that the proliferation of reports on system failures that have occurred in the last year probably poses a severe threat to the future of solar market development.

Respondents state that the availability of abundant hot water is another significant selling point in the final sale, as is the fact that the costomer would become independent of the utility (and therefore of risks associated with fuel price escalation).

cost of closing the sale

The cost of answering telephone calls and of visiting the homeowner was much greater than the cost of advertising and shows if hours are calculated at a rate of $25 per hour. The importance therefore of properly directing the advertising (to produce good leads) cannot be underestimated. Respondents spent $202,800 on internal labor, of which almost half was accounted for by answering telephone enquiries and a further $73,000 was

spent on visits to prospects (exclusive of the travelling cost, which was a further $21,000 and long distance telephone costs of $8,000).

Telephone enquiries and call backs absorbed more than 50 minutes per enquiry, and the average time spent on personal visits was double this (the average includes those who were visited twice).

THE EFFECTIVENESS OF INDUSTRY'S PROMOTIONAL EFFORT

effectivess of advertising and shows

Overall 18% of the enquiries generated resulted in a sale of a solar system, although 38% of prospects were visited (and 46% of those visited produced a sale).

sales through own contacts and referrals:

From the view of the number of systems sold per enquiry, there were three categories of promotion which proved significantly more effective than the others. These were:

- sales generated through one's own contacts, friends and neighbors;
- sales resulting from free publicity (although these sales were small because publicity was limited); and
- sales generated by other means, especially referrals.

However, apart from publicity, which is almost free, the other two items are difficult to cost out. The three items did however produce 56% of our respondents' sales.

Sales generated through own contacts was aided by the supplier's use of many small dealers. The sales were achieved by 28 out of 50 dealers making sales this way. There is probably little potential in this segment of the market because personal contacts are soon exhausted.

Sales generated through referrals have of course a large potential for exponential growth. The great advantage of following up upon satisfied solar home owners is that not only do they do the selling for the industry, but they also direct their "promotional effort" to their contacts who are more likely to buy solar because of similarities in income, etc.

Table 4 entitled, "Summary number of enquiries, visits and sales by type of promotional expenditure together with indicators of efficiency", provides relevant data.

paid print advertising:

Paid print advertising was significantly the best form of externalised promotion to the general public. It proved better than other forms of promotion in terms of both the quality of leads generated and cost. Generally speaking repetitive advertising in daily papers was better than weeklies or periodicals, while financially oriented sections were better than those placed in other sections. TV times sections of daily papers were also found effective.

Advertising in energy related specialty papers was very inefficient, as was that in home oriented publications. Repetitive advertising in a Farmers' weekly produced virtually no response. The reason for this is straightforward: energy or home enthusiasts and farmers are least likely to buy solar.

The recent EM&R survey of solar home owners stereotyped buyers as professional, above average (university) educated people with a sample median family income of almost $37,000. Forty per cent of the houses were valued at more than $100,000.

The use of "advertiser" type papers was common. These predictively produced little response, as would suburban newspapers of major cities. Furthermore, the use of classified advertisment sections in major papers produced poor results. Again, the misdirection of the message is the cause.

In some cases the dealer had to use the local advertiser because few other papers existed in the small town (except for regional papers which covered such a large geographical area that following up leads would have been too expensive).

Table 4.
Summary number of enquiries, visits and sales
by type of promoted expenditure together with indicators of efficiency

ITEM	NUMBER LEADS	NUMBER VISITED	NUMBER SOLD	% VISITED: LEADS	% SOLD: LEADS	% SOLD: VISITED	$ (1) PER LEAD	$ (1) PER SOLD
paid print advtg	855	463	181	54%	21%	39%	39	186
free publicity	168	112	47	66%	30%	42%	0	0
paid radio/TV	97	53	10	55%	10%	19%	54	526
direct mail advtg	293	138	59	47%	20%	43%	46	230
show orignated	1 915	302	95	16%	5%	31%	14	274
own contacts	572	303	196	53%	34%	65%	--	---
others	548	331	184	60%	34%	56%	--	---
TOTALS	4 275	1 639	751	38%	18%	46%	18	104

Sources and notes:

1. Only costs paid for external services are included.

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There were some "exceptions". A dealer in Saskatoon spent more than $2,000 on eight insertions of a large 250 x 180 mm advertisement in the Saskatoon Shopper. (See Appendix A for copy under DHW Systems Inc.) Approximately 40 enquiries were generated which resulted in 10 sales. Note, however, that the costs per enquiry and per sale were substantially higher than the average for paid advertising overall.

paid radio/television:

Paid radio or television advertising was the least cost effective of all forms of promotion. Not only did it produce less leads per dollar but the leads were of very low quality.

A possible reason for this is that solar energy technology is still quite unknown. This means that effective advertising should contain information on the system which can be scrutinised by the reader. The radio advertisment is not a good medium for this. Television may be better, but the short duration and high cost may work against its use.

direct mail advertising:

Direct mail advertising produced poorer leads than most other forms of promotion and was more expensive than paid print advertising. If one takes into account the time to screen the poor leads, it is significantly more expensive.

While direct mail advertising can be directed to the right physical location by selecting high income areas, the medium is poor because typical high income people would be less inclined to read direct mail advertising since it is associated mainly with bargain hunting activities for small consumer items.

Thus both direct mail advertising and advertising in the "advertiser" papers, or indeed in the classified advertising section of a major newspaper, are all likely to be poor at reaching the right target prospect. And, even if the right target were reached, the sale would be more difficult because the image of the product portrayed by such a medium is incongruent with the idea of a fairly major investment.

show promotion:

Shows in special exhibitions and malls produced very low cost leads but very high cost sales. Part of the reason for this is that the leads are poor. That is, the type of person passing by a show stall is not necessarily the type of person who buys. This is probably more so for the home and energy enthusiast.

However, a possibly more potent reason that cost of sales is so high is the mismanagement of leads. Firstly, the collection of names at the show is typically not well organised. Despite the opportunity to meet face to face with the prespect, little original screening is done.

Secondly, respondents using shows typically took more than a week, sometimes more than a month, to follow up on a lead. In view of what has been found earlier, this results in a large loss of interest among prospects. The home appointment date should be established at the show, if possible. (This is also a subtle means of screening out the less interested enquirer.)

the overall cost effectiveness of promotion

Our respondents spent $18 per lead and $104 per sale on advertising and shows but $85 per lead and $583 per sale in total promotion costs (including time and materials). These costs were more than double those of last year in real terms, although the figures are not directly comparable. Most of the total promotional cost increase per system was in the following up of leads.

The ratio of visits to leads, 18%, and sales to leads, 38%, were each four percentage points lower than last year. These differences, while significant, were not critical. The main difference came in the ratio of sales to visits, which this year was only 46%, compared to 63% last year.

Firstly, as already reported, enquiries were not screened as well as they could have been. This would partially account for the poor return on visits. However, we suspect that the influx of a large number of new and inexperienced dealers was a further cause of this reduction in efficiency.

Of course some dealers fared better than others. Fifteen out of forty five respondents spent $50 or less per sale on generating leads through advertising and shows (compared to $104 average for all respondents). Twenty spent $300 or less on total promotion costs per system (compared to an average of $483).

The distribution of costs per sale of outside promotion (i.e., advertising and shows) and total promotion among dealers are given in the following Figure 5 and Figure 6 respectively.

regional differences in promotional effort

It was not possible to get a complete picture of regional differences in promotional effort, mainly because of the fact that expenditures of manufacturers, which was mainly on literature, could not be allocated. However, there was also the lack of data from Quebec respondents due to some refusals and also to the activities of one large dealer who was brought to our attention too late to be included in our survey.

Table 5 entitled, "Some regional characteristics of promotion and its effectiveness", summarises the situation.

TABLE 5 SOME REGIONAL CHARACTERISTICS OF PROMOTION AND ITS EFFECTIVENESS

	"PWC DATA		"PROMOTION RESULTS		PROM	ADVT	PROM COST $/			ADVERT/SHOW $/			RATIO TO POPULATION		
	SALES	ENQU	VIST	SOLD	COSTS	COSTS	ENQU	SOLD	PWC	ENQU	SOLD	PWC	million	adver	pwc
BC=	144	332	158	83	31674	8173	95	382	220	25	98	57	2.40	3.4	60
ALTA=	118	1430	251	103	66184	9112	46	643	561	6	88	77	1.90	4.8	62
SASK=	10	41	16	11	4719	3051	115	429	472	74	277	305	0.93	3.3	11
MAN=	15	32	23	13	5978	578	187	460	399	18	44	39	1.00	0.6	15
ONT=	249	1337	513	189	127384	30057	95	674	512	22	159	121	8.40	3.6	30
QUE=	110	36	17	17	43466	15261	1207	2557	395	424	898	139	6.30	2.4	17
NB=	0	0	0	0	0	0	ERR	ERR	ERR	ERR	ERR	ERR	0.68	0.0	0
NFLD=	0	0	0	0	0	0	ERR	ERR	ERR	ERR	ERR	ERR	0.56	0.0	0
PEI=	94	338	168	108	28630	3179	85	265	305	9	29	34	0.12	26.5	783
NS=	244	729	493	227	55388	9133	76	244	227	13	40	37	0.83	11.0	294
CANAD	984	4275	1639	751	363423	78544	85	484	369	18	105	80	23.12	3.4	43

sources and notes:
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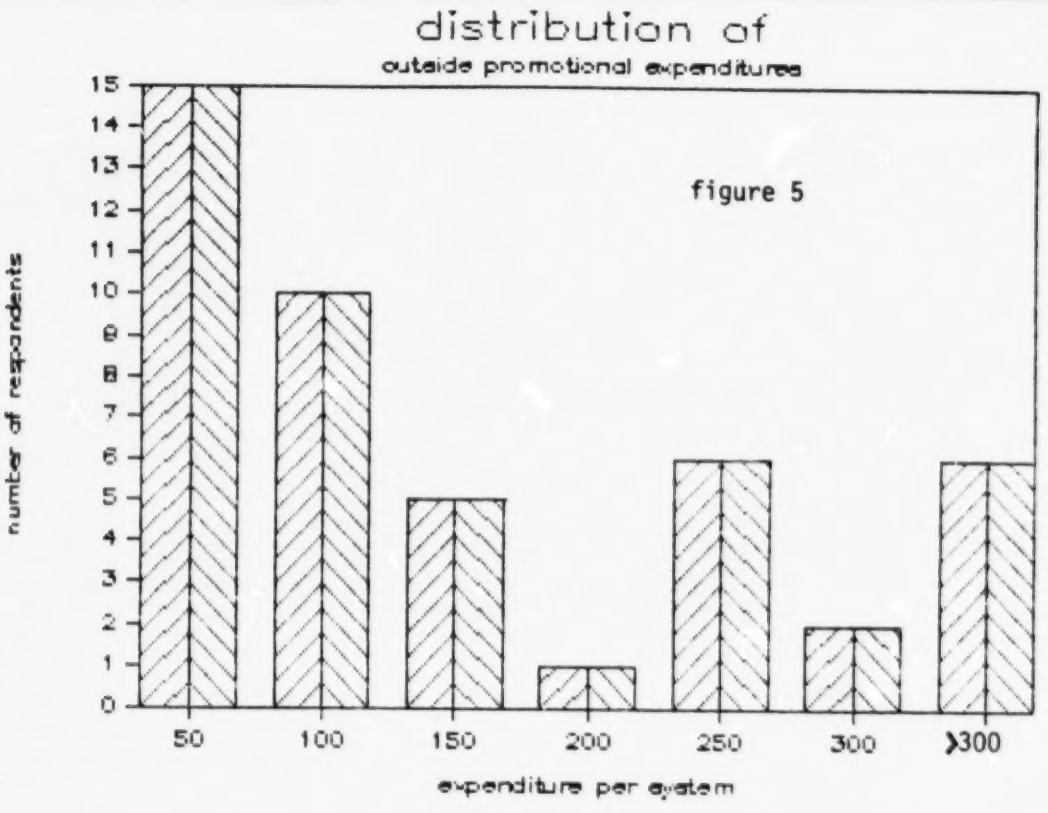


figure 5

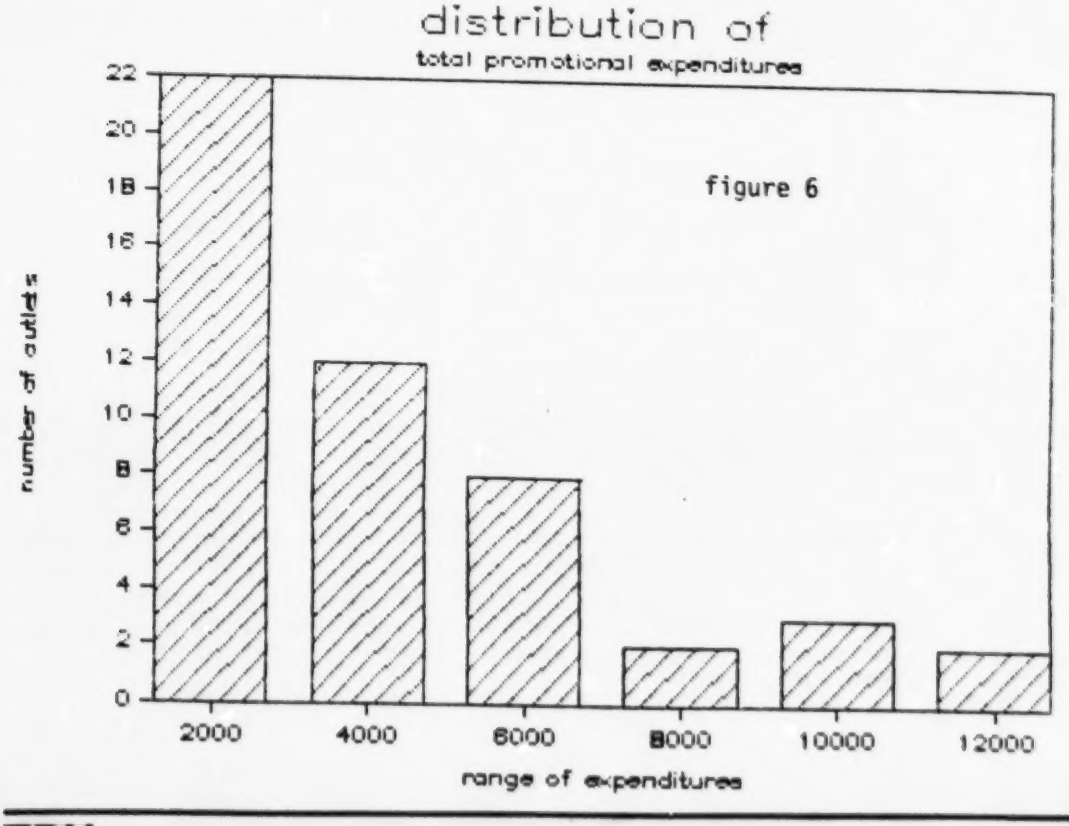


figure 6

Those dealers who had the lowest promotional cost per system were also those who sold the most systems. More than half of the systems were sold by respondents who spent less than $100 per system on advertising/shows and 30% by those spending less than $50 per system.

Furthermore, more than 45% of the systems were sold at a total promotional cost of less than $300 and 60% with a cost of less than $400 per system.

On average the Canadian solar industry spent $3.40 per thousand capita on advertising and shows, which resulted in system sales of 43 per million capita.

In British Columbia there were average per capita advertising expenditures for which there were above average returns. The cost of promotion per system was kept reasonable and sales were 60 systems per million capita. Alberta per capita advertising expenditures were somewhat higher, as were the per capita sales. Total promotion costs per system sold was slightly higher than average in Alberta, which reflected the fact that many dealers were new to solar and did not screen leads before visiting as well as they perhaps could have.

The fact that not as many systems were finally sold in the West as was expected was of course partly attributable to the very poor state of regional economies of both BC and Alberta. However, since the region did substantially better than the national average at a reasonable promotional cost, questions can be raised as to why the rest of the country's industry did so badly under much more favourable regional economies.

Several corporate problems affected efforts in Ontario. Three regional main contractors had financial difficulties and left the scene. Another major manufacturer lost money on one of the bankruptcies and underwent a major operational and management change. Yet another manufacturer had to deal with major installation problems which it attributed to one of its dealers.

Sales in Ontario were detrimentally affected by some marketing factors as well. Dealers state that poor performance of (demonstration) systems in Ottawa have created a significant consumer resistance against solar, especially among government employees, and similarly in Southern Ontario, where numerous system failures have been reported.

Also sales in the Toronto area have not occurred despite its 3 million population base. The failure to penetrate this market appears at this stage to be related to the lack of industry initiative. There are four dealers in the area which proved ineffective.

Otherwise, Ontario's advertising expenditures per capita were slightly above the national average, while per system returns were below the national average. There were 30 sales per million capita.

Even taking into account our limited data on Quebec, it is clear that its solar industry spent much below the national average per capita on advertising. Expenditures were likely the lowest of the main provinces. One reason for this is that there was apparently a misunderstanding betwen the major manufacturer and his dealers as to who was to advertise. Thus little was done in time.

As a result Quebec also fared the worst in sales per capita among major provinces. Sales were 17 per million capita in Quebec compared to 42 as the national average.

In the Atlantic provinces, there were no sales in Newfoundland and New Brunswick. In both Prince Edward Island and Nova Scotia expenditures on advertising were $26.50 and $11.00 per thousand capita. This was well above the $3.40 national average. Response to this level of advertising was excellent and resulted in very high promotion efficiency ratios.

Furthermore, sales in these two provinces were 783 and 294 systems per million capita compared to the 42 national average.

The good sales in the Atlantic Provinces were only somewhat reflective of the advertising and also of the community spirit existing in the small towns - which results in referral activity. Presumably the high cost of energy counterbalanced the poor regional economic state. Some respondents state also that people of these provinces are so used to government grants that they are eager to take advantage of them.

However, the most potent added factor in achieving such good results was likely the Canada Oil Substitution Program Grant (COSP), which was promoted and received by 149 or 44% of the solar system buyers in the region. This $800 grant, added to a PUSH grant of $1,600, meant that the customer paid about $800 for a system worth

$3,200.

ALLOCATION OF PRICES AND COSTS

The average respondent dealer/seller netted $1,430 per system under the program, and the typical customer paid $1,750 with an average $1,640 government grant. The typical supplier retained $1,960 (made up of the difference between the customer price of $320 plus the grant).

price factor

There is not clear evidence from dealers that the "price increase" over last year was a significant deterrent in selling solar. The other factors discussed above are more likely to have resulted in slow sales. As reported last year "the deal" that the customer got was a large factor. This year the deal too was a large factor in the Altlantic Provinces, where a number of buyers received the COSP grant and in British Columbia, where a dealer offered his own "grant" of $300 (on an inflated price of the same amount). This dealer was installing systems at an average price of 10% or more than elsewhere in Canada, with a very high success rate.

However, the payment of $1,700 for a solar system constitutes a major purchase for even high income earners, especially where many would regard it as uneconomic, even with the grant. Canada has through the 1981-82 period and into 1983 been in the worst recession in decades. Many professionals and business entrepreneurs experienced serious financial difficulties, including loss of employment.

The realisation of the wrenching impact of the recession was felt possibly most after people assessed their losses of the period. Certainly these effects weighed heavily everywhere through the winter of 1983, but especially in Atlantic and Western Canada where the economic crisis continued.

The economic climate no doubt had an impact in 1983/4 probably more than in the previous year. This combined

with the other negatives at work, including the small increase in price.

dealer and supplier returns

The dealers quoted prices and took the risk of ensuring that the installation was done for the budget quoted. They were also responsible for promotion and, in their view, received very little promotion support from their suppliers.

Since there was a proliferation of dealers, and significant competition in several areas, dealers (many of whom were really only installers) had the burden of promotion for small returns. It should not therefore be surprising that:

18% of respondents stated they made a loss;
41% stated that they made little profit;
29% stated that they made fair profits, and
11% stated that they made good profits.

Some equipment suppliers, on the other hand, were, in their view, faced with losses through bankruptcies and poor workmanship (especially in Ontario).

Of the six manufacturers responding

- two said they made good profits;
- two said they made fair profits;
- one said he made little profit; and
- one said he made a loss.

Since Amherst Solar of Ottawa was taken over during a difficult financial period, it is assumed that that firm was also making a loss.

There were few complaints from dealers or manufacturers on the government's pricing policies or on the grant level. Clearly, market conditions are not buoyant enough to allow for exploitation, and it is to the advantage of both the public and private sectors to see industry sustain reasonable profits under the program.

A minority of dealers believed the extension of the availability of the grant was disruptive to their marketing strategy, where the important component of a sense of urgency or limited availability was used.

However, the majority thought that the availability of a continuing program was an overriding advantage.

CONCLUSIONS ON MARKETING STRATEGIES

summary marketing management environment

The inability of the solar industry (manufacturers and their dealers) to sell more than one half of the systems allocated under the 1984 Phase III program is attributed to a combination of factors. These include the following, ranked roughly in order of their potency:

1. lack of program awareness among the public, caused predominantly by almost insignificant free publicity (compared to the previous year);

2. influence of many inexperienced dealers, combined with poor manufacturer control and support;

3. inappropriately timed and directed advertising by dealers, especially with respect to media selection;

4. poorly managed collection of enquiries among dealers, which resulted in interested people being unable to contact advertisers in an efficient manner;

5. lack of manufacturer support for dealers in their promotion and, for a few, their failure to carry out promised promotional activities;

6. system failures and resultant customer resistance in certain key geographic markets;

7. government inaction in the wake of the above, particularly with respect to public awareness, timely advertising and the effective handling of enquiries generated by advertising;

8. inadequate screening of leads by dealers, resulting in lower closing efficiencies, wasted time and higher promotional costs;

9. unusally severe winter conditions;

10. the effects of the depressed economy, particularly in the Atlantic and Western provinces;

11. the decrease in the level of the grant and resultant price increase to the customer;

12. compared to the previous year, the potent "limited time only deal" component was less apparent, and of course the really easy sales were apparently exhausted.

Regretfully, it appears that some manufacturers and dealers were discouraged by their performance, which further undermined the industry's ability to agressively market their systems.

marketing strategies for manufacturers

Manufacturers had between the 1982/3 and 1983/4 program made great efforts to build up a large number of dealers. Hopefully, the experience of the last few months will demonstrate to them that this produced predictably disappointing results.

The reason for this is basically threefold: Firstly, "dealership" involves marketing; few of the dealers chosen had this capability. In other words the dealership function has been confused with the physical installation function.

Secondly, too many dealers are difficult to manage. It was abundantly evident during this survey that manufacturers basically lost control of the management of their dealerships (even to the extent that some were not able to give reliable data on their dealer sales positions).

Thirdly, the designation of the promotion function to dealers (especially when they were very small and had no capability) resulted in very ineffective promotion, since

the dealer could not be expected to make profits on the sale of a few systems because unit promotional costs could not be absorbed.

A further, more controversial, point which is necessarily a consideration in planning one's strategy, is that the Canadian natural market for solar is not apparently healthy, nor does the existence of a government grant necessarily stimulate future market price conditions. This means that the solar industry is selling the grant possibly as the major component of the product package. The appropriate distribution for this package may not be the same as for a solar package sold in an unsubsidised market.

Manufacturers should consider setting different strategies for various regional markets, taking into account the need to manage and control (certain) dealers as well as provide support. In markets close to the factory, selling through dealers may not be the most efficient thing to do, especially if a reliable one cannot be found. Consider defining a large geographic "local" market to receive maximum management directly from a marketing function in the company offices. A Toronto or Montreal based manufacturer could effectively decide to sell direct to the whole province (perhaps supported by regional installers who do not take a part in marketing the product).

This direct approach of course would involve company employed full or part-time (perhaps commissioned) staff, who could be located in distant towns, selling directly to homeowners and supported by direct promotional activities. The head office maintains direct control also of installers (who are asked not to engage in marketing).

Markets bordering the local market for which direct control would not be efficient could be penetrated by the use of a select few competent dealers who have marketing capabilities (e.g., established retail outlets). (No consideration should be given to installer operations only.) Promotional activities in these dealer controlled markets are cooperative in nature. The dealer receives financial backing when using the manufacturer's name. (A dealer who is convinced that he is one of a select few and that he is also to receive proper attention may even be persuaded to go exclusive.)

Very distant markets (including export markets) may be

best served by a local manufacturer's agent. These agents would directly represent the manufacturer in establishing a few select dealers and would become the main contacts and coordinators for the manufacturer.

In geographical markets for which there is an exceptional opportunity, special distribution channels may need to be established. The Atlantic Provinces have been such a market historically.

promotion strategies

Promotion strategies should be established in advance of the sales campaign and should be congruent with the other elements of the marketing mix - the product, prices, and distribution strategy.

Promotion, whatever its form, should have five major considerations:

- consider who the potential solar customers are; their stereotype is now fairly well documented, (e.g. high income, professional) and direct most, if not all, efforts towards reaching this type.
- consider what the customer's main motivations are in buying a solar system. These now are also quite well known, e.g.: the grant and energy savings. Heavily promote these factors.
- consider that the general public has a low level of knowledge about solar. Provide sufficient information in the advertisement to ensure that the prospect's interest is not based on ignorance. This will pay good dividends later.
- consider that the customer needs to be persuaded not only to buy solar, but to buy it from the advertiser. Establish an image of technical competence and manufacturing reliability. Promote the manufacturer as well as the product.

The external promotion mix, mainly between advertising, direct mail and shows, should be worked out beforehand.

Trial and error methods are wasteful. Radio and television advertising appears very ineffective and should not be used. Advertising place in media not read by the target prospect, e.g.: suburban and special interest nespapers, should be avoided, as should the placing of advertisements in the classified, home or energy section of a main newspaper.

For the larger manufacturer with national interests, national advertising in the upper end newspapers and magazines will likely produce the best results. The smaller dealer should resist taking what appears to be the cheapest advertising route, but rather consider what will generate the best lead for the lowest cost. Local papers should be avoided if possible.

General direct mail has been shown to be less effective than advertising in the press. If part of the promotional mix includes direct mail, consider that it be targeted only to high value housing, and that the flier itself not only contain the five above mentioned considerations, but that it also be of high quality.

Shows are also tentatively shown to be quite ineffective as producers of good leads (although this may be more a question of the later mishandling of leads). Energy and home shows, at this stage of the market's development, are still not proven to be good generators of quality leads. Malls in a high income neighborhood or a pool or boat show would be a better medium.

Internalised promotion in the form of seeking referrals is especially effective for the established marketer. Following up on customers under the auspices of enquiring about their satisfaction with their system has been shown to be an excellent form of lead generation. The systematic follow up produces exponential growth in a viable market because it is likely that referrals are already partially convinced of their need, and it is probable that they fit the buyer stereotype as well.

The holding of open houses and customer seminars are other ongoing activities which produce good results.

promotion tactics

Good promotion tactics are essential to the delivery of the promotional strategy. Advertising and show

expenditures are wasted if one is not fully organised to take the enquiries and, from the first contact, conduct the exchange in an informative and efficient manner, right through to the closing of the sale.

Remove as many barriers to the customer, and conduct the sale as quickly as possible. In other words, reduce opportunities for a change of mind or the activities of competitors to the minimum.

Budget for a good handling of incoming calls. Marketers should beware that the first contact, above all, be well managed. Callers should be able to access a qualified salesperson on the first call. Avoid telephone systems which are always engaged (have more temporary lines installed during advertising campaigns), or answered by answering services or machines. If a message must be left, call back in the shortest possible time and certainly the same day.

Notice should be taken of how the prospect became aware of the firm. This is mainly so that the following discussion can be adjusted accordingly. A prospect calling on the basis of referral should be dealt with differently from those answering an advertisement.

For shows, the initial contact is equally as important. Most efficiency is achieved by screening leads at the show, part of which is arranging a visit to the home. If this is not done, act immediately to call the prospect again, if possible the same or next day.

personal visit technique

Essentially it is wise to arrive at the site with the expectation of a sale. Assume the customer is buying. The best salesman is the technically knowledgeable trained salesman. Product knowledge is essential but scientific explanation should be avoided. Rather, the simplicity of the system should be propounded. Again, promotion of the technical competence and backup of the manufacturer is part of the technology pitch.

As part of the "assume the customer is buying" mode, the salesperson accentuates those aspects of solar which qualifies the prospect, e.g. the amenability of the home, and the amount of hot water required, and the amount of energy savings desired. Avoid or sidetrack discussions

of possible negative issues such as payback of the solar system.

The seller should use the contract as a selling tool, ensuring that the document highlights such items as the government grant. Fill out the form during the discussion so that the prospect realises that he is expected to sign. If there are indications of resistance to signing, emphasize indirectly the inconvenience of your trip (and possible future trips) and if resistance continues add a handwritten clause that the agreement can be cancelled within seven days on written notice.

The cost of a two visit sale is high, so that if a second one is required it should be on the understanding that the sale is a certainty.

information feedback

Finally, the effective marketer keeps good records of his sales activities. At the end of the day, these records provide important feedback on where leads originated and the effectiveness of the particular sales approach used. These provide essential information on how the marketing plan and strategy are to be adjusted over time for maximum efficiency.

APPENDIX A

Questionnaires used in the DHW survey

PUBLIC WORKS CANADA
SOLAR DHW DEMONSTRATION PHASE III PROGRAM
MAIN CONTRACTOR RESPONSE

Mr. Steve Dalton
Enersource Inc.
27 Wiscott Street
St. Catherines
Ont. L2R 1C7
416-688-6267

COSTS OF PROMOTIONAL ACTIVITY UNDER THE DHW PHASE III SOLAR PROGRAM

COST OF BASIC SOLAR PROMOTION (EXCLUDING INTERNAL LABOR AND TRAVEL COST)

With respect to your organisation only, indicate how much you spent in promoting solar sales for the DHW phase III program between end October 1983 and end May 1984. (Exclude all expenditures incurred by your distributors/dealers/agents, etc. and exclude internal labor costs. Insert zero where you had no expenditures.)

advertising in the daily press	$ _____
advertising in weekly papers	$ _____
advertising in periodicals	$ _____
cost of direct mail advertising	$ _____
cost of other direct print advertising	$ _____
cost of radio/television advertising	$ _____
cost of participating in shows	$ _____
cost of preparing special literature	$ _____
basic promotional cost (excluding internal labor and travel cost)	$ _____

INTERNAL LABOR COST FOR PROMOTIONAL ACTIVITIES

With respect to your organisation's full and part-time employees, indicate the time and hourly rate spent on the following promotional activities between end October 1983 and end May 1984 on the solar program (exclude commissions paid to salesmen):

	hours		$ per hour	$ total
preparing promotional material	_____	@	_____	_____
answering telephone enquiries	_____	@	_____	_____
promotion related personal visits	_____	@	_____	_____

OTHER PROMOTION RELATED COSTS

For the same period indicate telephone solicitation, salesman commissions, finder's fees, promotional travel costs and long distance promotion related telephone call costs (insert zero where no cost was incurred):

Labor cost for cold call telephone solicitation (if used) $ _____

salesman commission (for number of systems: _____) $ _____

Finder's fees (for number of systems: _____) $ _____

promotion travel costs (12 cents/km or 30 cents/mile for land) $ _____

long distance promotion related telephone costs $ _____

If you incurred any other promotion related costs, please give details: _____

_____

If you provided any financial assistance for promotional activities to subcontractors/dealers, etc., please give details: amount: $ _____ explain arrangement: _____

_____

Please describe any promotional materials supplied to subcontractors: _____

_____

DETAILS OF PROMOTIONAL METHODS

SALES STRATEGY

What were the key elements of your sales efforts?

_____

_____

_____

_____

_____

PAID PRINT ADVERTISING

Please give details of your paid advertising (exclude advertising by subcontractors).

name of newspaper/periodical	number of inserts	date (month)
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please supply copies of these advertisements: Supplied |___|

What was the basic message you tried to convey in these advertisements?

FREE PUBLICITY

Did you receive any free newspaper publicity? yes |___| no |___|
If yes please give details: _____

OTHER PROMOTION

Please give details of other promotion as follows:

direct mail: number |__|__|__|__|__| source of list: _____

shows: _____

radio/television: _____

house to house fliers: _____

telephone solicitation: cold calls number |__|__|__|__|__| _____

in-store display: _____

other: _____

As part of your sales effort, did you call previous solar buyers and ask for details of friends/neighbors who were interested in solar? yes _____ no _____
If yes, with what results? _____

RESULTS OF PROMOTION (DO NOT INCLUDE SUBCONTRACTOR RESPONSE)

Please estimate the results of your sales efforts in the following table:

results for:	number of enquiries generated	number visited	number systems sold
paid print advertising :	_____	_____	_____
free publicity :	_____	_____	_____
paid radio/television :	_____	_____	_____
direct mail advertising:	_____	_____	_____
show generated :	_____	_____	_____
own contacts :	_____	_____	_____
other :	_____	_____	_____

If you undertook personal visits, what where the main criteria in deciding whether a customer was worth visiting? _____

Who conducted the personal visit to the customer?

trained salesperson |___| regular installer |___| other |___|

What percentage of the customers who actually bought solar systems had to be visited twice on sales calls before signing? _____ %

What percentage of the other interested people who did not finally buy the solar system were visited twice? _____ %

On the promotional visits, what percentage of customers significantly discussed the following:

the final savings derived from solar:	|__|__|__| %
the payback of the solar system	: |__|__|__| %
the details of the grant	: |__|__|__| %
the workings of a solar system	: |__|__|__| %
the reliability of the system	: |__|__|__| %
the responsibility for repairs	: |__|__|__| %
the details of the contract	: |__|__|__| %
the standing of your organisation	: |__|__|__| %

What other main items were discussed? _____

Please rank among the following ten items what you think customers main concerns are prior to deciding whether or not to buy the solar system. (Use 1 for highest concern and 10 for lowest):

collector's appearance	|__|__|
cost of purchase	|__|__|
reliability and life of system	|__|__|
orientation of the house	|__|__|
newness of the industry	|__|__|
maintenance costs	|__|__|
uncertainty of energy savings	|__|__|
climate appropriateness	|__|__|
payback of investment	|__|__|
newness of the technology	|__|__|

Please list the five most important facts about solar which convinced the customer to buy:

1. _____ 4. _____
2. _____ 5. _____
3 _____

To what extent do you think previous solar systems failures have contributed to new customer resistance (check one box only):

small impact |___| some impact |___| significant impact |___| large impact |___|

What do you think were the five main factors hurting solar sales under the phase III program:

1. _____ 4. _____
2. _____ 5. _____
3. _____

Did you promote the COSP grant? yes |___| no |___| ; How many of your solar bugers also received the COSP grant? |__|__|

Did the government's advertising in March have much impact on your sales effort?

small impact |___| some impact |___| significant impact |___| large impact |___|

COST OF INSTALLATION

How much did your organisation receive for the average installation under the program (please provide the following data):

customer paid : $_____

you received : $_____

your supplier received: $_____

(government grant : $_____)

To what extent did you find your participation in the program profitable?

good profits |___| fair profits |___| little profit |___| made loss |___|

GOVERNMENT SUPPORT 6

How would you describe the adequacy of Federal government support during this program?

good support |___| adequate support |___| inadequate support |___| poor support |___|

Please state any failings:

Please give your ideas on improvements that could be made to the program:

Any other comments:

please return to: TRU Ltd.,Box 1069 F Toronto,Ont. M4Y 2T7 (416) 961-4691

APPENDIX B

Examples of advertisements placed
by the participants under the DHW program

AN ENERGY-SAVING INSTALLATION / STORY

HYDRO PULSE
BY HYDRO THERM

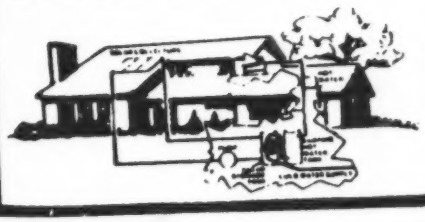
This revolutionary new heating unit, uses no burner, no pilot, needs no flue, no chimney.
It operates on the pulse combustion principle, which uses natural gas much more efficiently than conventional boilers. If you are in depression over high heating costs, call today to learn more about Hydro-Pulse

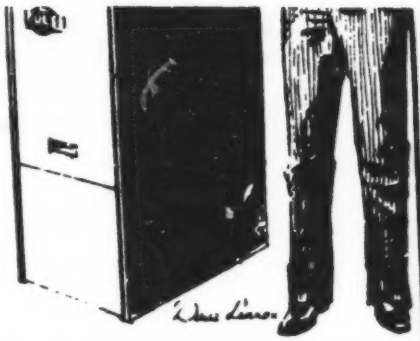
R. K. MECHANICAL
243-4229 240-2536

Federal Government Subsidized
SOLAR COLLECTOR SYSTEM
To Heat Domestic Hot Water
For The Home Or Business
It's Simple
It's Efficient
It's Available From

SUN ENERGY ENGINEERING LTD.
renewable energy systems design
26 New Street S.E.
Calgary Alberta T2G 3x9
(403) 266 1208

If you are interested in purchasing a solar collector D.H.W. system you save $1600. with the Federal Grant. We are offering to a limited number of qualifying Calgary homeowners to supply the equipment and install the system for $1700.00.
With this solar collector system you can save up to 70% of the annual cost of heating domestic hot water.





With the Pulse gas furnace you can anticipate a reduction in your regular heating bills by up to 43%. Those savings continue, month after month. Ultimately, your investment will be totally repaid. And year after year the Pulse keeps on saving.
A remarkable Lennox engineering achievement makes it possible.

PULSE FEATURES:
- ✓ 96 - 98% efficient
- ✓ Spark plug combustion (no pilot light, no burner, no cumbersome chimney)
- ✓ 20 year warranty
- ✓ attractively priced
- ✓ Just four feet tall
- ✓ Made in Canada
- ✓ Eligible for the up to $800 C.O.S.P. rebate
- ✓ Quiet
- ✓ Efficiency certified and approved by The Canadian Gas Association

LENNOX PULSE
See the Yellow Pages for your nearest independent Lennox dealer

HeatCraft
HEATING
2080C - 38 Ave. N.E.
250-2388
- Hi-efficiency furnaces
- Electronic air cleaners
- Power humidifiers

ARPI'S INDUSTRIES LTD.
6815-40th St. S.E. Calgary 236-2444

Home
You c

Free, at you

Calgary Herald Energy Supplement

Thurs Nov. 10th / 83

A FANTASTIC OPPORTUNITY FOR FREE GIFT PACKAGES

DELUXE GIFT PACKAGES
Microwave, washer & dryer/interest-free 2nd mortgage/1st mortgage guaranteed for 2 years at 2% below/approx. $700/central air-conditioning/fireplace/kitchen package with dishwasher, self-cleaning oven, frost-free fridge.

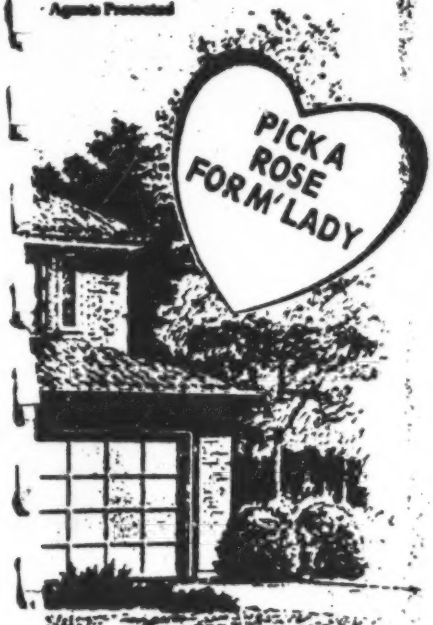
CONVENIENCE GIFT PACKAGES
Microwave/washer/dryer/6 months free heating/$400 to help you
stove/landscaping/gas snowblower/gas lawn mower/home computer/gas BBQ.
HURRY! FREE Gift Packages apply ONLY to the last few selected homes in PHASE 1.

SEE OUR FURNISHED MODELS DAILY
Take Wellington to Southdale, east on Southdale, right on Millbank, south on Millbank to Chapelton.

OFFICE HOURS:
Monday to Wednesday: 8:30 a.m. to 12 Noon, 1:00 p.m. to 8:00 p.m.
Thursday & Friday: 8:30 a.m. to 12 Noon, 1:00 p.m. to 6:00 p.m.
Saturday & Sunday: 1:00 p.m. to 6:00 p.m.

Call Sharon Nebbs
681-2310 for more information.

Agents Protected



MITED

The curtain is about to rise on London's newest, most luxurious one-storey condominium homes.
For a sneak preview, call... 473-2144

We're in Hot Water!

SOLAR HOT WATER! Provided by the cleanest and most abundant source of free energy today — the sun. The Solcan solar water heater can provide up to 70% of your hot water needs.

Homeowners, you are eligible for a 50% Government Subsidy —non taxable

Stop wasting expensive conventional fuel and switch to the energy that's free and clean . . . the sun. Install a Solcan solar hot water system and save $$$.
Offer available for a limited time only.
Dealer inquiries invited.

See Us At White Oaks Mall during Engineering Week, Feb. 13-18

for further information call or write

Solcan Ltd

RR #3, London, Ont.
N6A 4B7
(519) 473-8501

Are you burning money

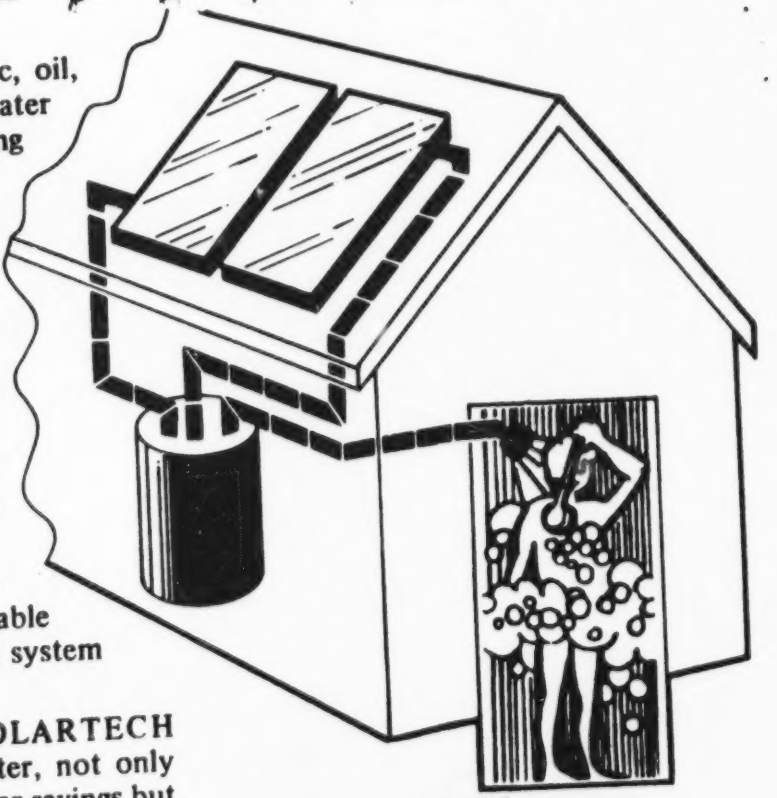
to heat water?

IF YOU HAVE an electric, oil, natural gas or propane water heater, then you are burning money. Why not take advantage of a proven technology that can save you money? Solar water heaters supply you with plenty of hot water and save you money in two ways:

1. They save up to 70% of your water heating bill.
2. A 50% federal government subsidy is available towards the installed system cost.

By investing in a SOLARTECH SOLARIZER™ water heater, not only will you enjoy direct dollar savings but you will also increase the value of your home, make a safe hedge against rising utility costs and utilize a clean, free and inexhaustible energy. This high efficiency system provides completely safe, automatic and maintenance-free performance. It is installed by professionals and is backed by a full 3 year warranty. And that's just the beginning. In the years to come, as the cost of energy increases, you'll even save more.

System subsidies are available only for a limited time, so invest now in a SOLARIZER™ and stop burning money.



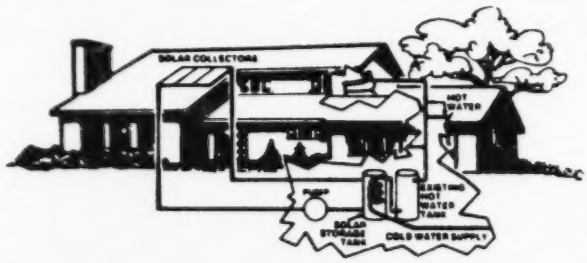
Call your Solartech Dealer today!

SOLAR

IT WORKS

IT'S SIMPLE AND

IT SAVES MONEY



Non-Taxable Federal Grant of $1,600 is available to a limited number of homeowners

Federal Grants also available for Commercial/Industrial Installations

Save up to 70% Annual Cost of Heating Utility Water for Your Home or Business

LEWIN PLUMBING & HEATING LTD.

Box 41
Valleyview

524-4450

AUTHORIZED SOLAR CONTRACTOR UNDER FEDERAL GRANT PROGRAMS OF SOLAR WATER HEATING

Look to the sun for a bright energy future

You can lower conventional energy consumption by purchasing a solar water heater. The Government of Canada will pay up to 50 per cent of the equipment and installation costs.

All systems that qualify for Government of Canada assistance are backed by the Canadian Solar Industries Association's three-year warranty.

For more information on Canada's Solar Hot Water Demonstration Program, please contact the Conservation and Renewable Energy Office of Energy, Mines and Resources Canada.

British Columbia
Burnaby (604) 524-7222
elsewhere 112-800-663-1280
(toll free)

Manitoba
Winnipeg (204) 949-4266
elsewhere 1-800-542-8928
(toll free)

New Brunswick
Dieppe (506) 388-6070
elsewhere 1-800-332-3908
(toll free)

Newfoundland
St. John's (709) 772-5353
elsewhere in Nfld. and Labrador
Zenith 07792 (toll free)

Alberta
St. Albert (403) 420-4035
elsewhere 1-800-222-6477
(toll free)

Ontario
Toronto (416) 252-5866
elsewhere 1-800-268-2207
(toll free)

Nova Scotia
Halifax (902) 426-8600
elsewhere 1-426-8600
(toll free)

Yukon
Whitehorse (403) 668-2828
elsewhere Zenith 2828
(toll free)

Saskatchewan
Saskatoon (306) 665-4532
elsewhere 1-800-667-9719
(toll free)

Quebec
Montreal (514) 283-5632
elsewhere 1-800-361-8025
(toll free)

Prince Edward Island
Summerside (902) 436-7283
elsewhere 1-436-7283
(toll free)

Northwest Territories
Yellowknife (403) 920-8475
elsewhere Zenith 2828
(toll free)

Canada's Solar Hot Water Demonstration Program...
supporting new technology for a secure energy future

Energy, Mines and Resources Canada
Énergie, Mines et Ressources Canada

Canada

TAP THE SUN

Install a Solar Hot Water System SAVE UP TO 70% of your water heating costs AND qualify for a $1700 Federal Government Rebate

Thousands of people around the world are installing solar hot water systems.

Isn't it time you did?

We think it is. And, here's why. By installing a solar water system now, you can save as much as 70% of your water heating cost starting this year and for many years to come. And the Federal Government will give you a rebate of up to $1,700 to make the installation. You win on both counts.

Time is limited however. As is the number of systems available. So act now. Call us today and we will install a hot water solar system featuring the internationally recognized Q'Sol thermal diode solar collectors manufactured right here in Canada by Norsun.

So, why not do yourself a favor? Take the worry out of rising energy costs. Come in and talk to us or give us a call today. We carry

★ Seasonal Systems ★ Swimming Pool Systems

★ Year Round Domestic Hot Water Systems

DHW SYSTEMS INC.

518B-47th St. East • Saskatoon • 934-5288

Open 8 a.m. - 8 p.m. Mon. - Sat.